NOTE XIV.

DIAGNOSES OF NEW SPECIES OF MACRUROUS DECAPOD CRUSTACEA FROM THE „SIBOGA-EXPEDITION"

BY

Dr. J. G. DE MAN.

II. [1])

1. *Iconaxius Weberi*, n. sp.
   Station 266. Lat. 5°56'5 S.; long. 132°47'7 E. Depth 595 M.
   Station 267. Lat. 5°54' S.; long. 132°56'7 E. Depth 984 M.

Related to *Iconaxiopsis spinigera* Mac Gilchrist. Rostrum triangular, depressed, little longer than broad, with rather obtuse extremity, reaching about to the middle of the 2nd joint of the antennular peduncle, its lateral margins serrulate and continued as entire ridges on to the carapace; median crest, on the anterior inclined part of the gastric region, smooth and running out in two distinct, smooth, arcuate ridges, that reach as far backward as the described lateral carinae.

Telson once and a half as long as broad, lateral edges toothed, a little more convergent and the posterior margin, that has a tooth in the middle, rather convex in the males and young females, less convergent and the posterior margin nearly straight in the old females.

1) The first Part, containing the diagnoses of 28 new Species and of 1 new Variety, was published in 1905 in the „Tijdschrift der Ned. Dierk. Vereen." (2) T. IX, pp. 587—614.

Eye-peduncles short, eyes facetted, not pigmented at all. Scaphocerite large, almost reaching to the distal end of the antennal peduncle, stylocerite a little shorter.

Chelae of 1st pair of legs about as in *Icon. kermadeci*, but the larger chela with a strong, broad tooth at the base of the dactylus; smaller chela with an acute, simple or bicuspid tooth at the base of the immobile finger, as in *Icon. kermadeci*, *Icon. parvus* etc.; the fingers once and a half as long as the palm, dactylus strongly curved.

Carpus of the 2nd legs longer and more slender than in the other species, little shorter than the merus and than the chela, always longer and distally broader or thicker than the palm; fingers, in the adult, one fifth the length of the whole chela.

Eggs few in number, large.

Length of the male 16mm., of the female 20mm.

2. *Iconaxius crista-galli* Faxon, var. *indica*, n.
Station 267. Lat. 5°54′ S.; long. 132°56′7 E. Depth 984 M.

Closely related to *Iconaxius asper* Rathb. from the Hawaiian Islands, but the palm of the larger chela is less high in proportion to its length and its upper border is faintly denticulate.

Median crest of the rostrum which appears a little narrower than in the type and the acute tip of which is curved upward, armed with 16 small, sharp teeth instead of 7; lateral ridges posteriorly more prominent than at the level of the median crest. Lateral margins of the rostrum each with 6 or 7 prominent teeth. Third joint of antennular peduncle barely shorter than the 2nd.

Carinate upper border of the palm of the larger chelipede faintly denticulate along its whole length and terminating in a small, sharp tooth; two or three teeth on the distal border of the palm, between the fingers. Of the two teeth of the dactylus that exist in the type, the distal

one is wanting. Smaller chela with a sharp tooth at the base of the fixed finger; upper border of the palm also faintly denticulate.

Palm of the 2nd legs one third longer than the carpus, chela little shorter than the merus, which is almost twice as long as the short carpus.

Length of egg-bearing female 30mm.

3. *Iconaxius (Iconaxiopsis?) consobrinus*, n. sp.
Station 280. Lat. 8°17'4 S.; long. 127°30'7 E. Depth 1224 M.

Closely related to *Iconaxiopsis laccadivensis* Alcock, but the carapace (rostrum included) shorter, hardly longer than the first four abdominal somites combined and the proximal tooth on the fixed finger of the larger hand near the finger-cleft indistinct.

Carapace measuring little more than one third of the whole length. Rostrum very narrow, reaching to the middle or to the distal end of the 2nd joint of the antennular peduncle, about 3-times as long as broad in the middle; extremity subacute, lateral margins hardly converging, presenting three or four small, rather indistinct teeth. Median crest extending until near the tip, entire, dividing itself posteriorly into two rather indistinct ridges that are short, reaching not so far backward as the lateral ridges. In *Icon. acutifrons* Sp. Bate and in *Icon. farreae* Ortm. the rostrum is more triangular, broader at the base and the lateral margins diverge more strongly backward.

Carapace and abdomen as in *Icon. acutifrons*.

Eye-peduncles barely reaching to the middle of the rostrum, cornea facetted and of a pale yellow-green colour.

Both pairs of antennae as in *Icon. acutifrons*.

Lower angle of the carpus of 1st pair of legs obtuse. Larger chela of the male little shorter than the carapace; the palm, that is slightly longer than high, is once and a half as long as the fingers that leave proximally a small

hiatus between them when closed. Fixed finger with one single, subacute tooth of medium size that is curved towards the tip, situated nearer to the articulation than to the tip and preceded by a moderately deep notch; prehensile edge finely crenulate between that tooth and the tip; dactylus with small, rounded tooth near the base.

Palm of the smaller chela little shorter than the fingers, without any trace of a tooth or prominence at the base of the triangular fixed finger.

Legs of the 2nd pair as in *Icon. acutifrons*, but the carpus is a little longer than the palm; in proportion to the length of the merus and of the chela the carpus is, however, shorter than in *Icon. Weberi*.

Length 23,5mm.

4. *Metapeneus elegans*, n. sp.
Station 121. Menado-anchorage. Depth 55 M.

Closely resembling *Metap. affinis* M.-Edw. (vide Alcock, Indian Decapod Crust. Macrura, 1906, p. 21, Pl. III, fig. 8, 8*a*—*b*), but the petasma has a different form, terminating in two small anterior and two large posterior lobes, the latter of which are obliquely furrowed on their posterior surface.

Rostrum slender, as long as antennular peduncle, curved upward, 1 + 10 toothed; upper flagellum barely shorter than the peduncle. Carapace and abdomen smooth. Postrostral ridge low, obtuse, fading away before the posterior margin of the carapace. Three first abdominal terga rounded, telson without lateral spinules.

First, second and third pair of legs with a small spine at base, first pair also with a smaller spinule at the far end of the ischium. Legs of the 5th pair reaching to the middle of antennal scales, shorter than those of *Metap. affinis*. Ischium of 5th legs with the lower margin expanded, appearing as a sharp edge, without a subterminal lobule; notch at the proximal end of the merus bounded

anteriorly by a short retrorse tooth, that is directed outward and obliquely truncate.

Length of (probably not yet full-grown) male 81mm.

5. *Metapeneus sibogae*, n. sp.

Station 306. Lat. 8°27′ S.; long. 122°54′5 E. Depth 247 M.

Station 312. Lat. 8°19′ S.; long. 117°41′ E. Salehbay, north coast of Sumbawa. Depth 274 M.

Closely related to *Metap. coniger* W.-Mas. var. *andamanensis* W.-Mas.

Body tomentose. Rostrum more slender than in the quoted variety, in the male a little longer than the rest of the carapace, in the female once and a half as long as it, rarely quite straight, usually the distal half or third part more or less curved upward. In addition to a small epigastric tooth, the rostrum is armed with 8 or 9 small teeth, all on the rostrum proper and becoming smaller and further apart as they approach the extremity. No postrostral ridge. Abdomen as in the quoted variety, the 4th and the 6th terga presenting even obscure traces of subcarinae; 6th somite twice as long as the 5th and just as long as the telson.

Antennular peduncle a little longer than the carapace without the rostrum; as in *Metap. coniger* the longer flagellum carries in the male a small tooth at one sixth of its length from the base.

Thoracic legs somewhat more slender than in *Metap. coniger*, 1st pair bispinose, 2nd unispinose.

Petasma at least half as long as the carapace without the rostrum, asymmetrical, the right lobe distinctly longer but narrower than the left, that is truncate; the right often somewhat turned outward.

Thelycum consisting of a quadrangular, white coloured plate, a little broader than long and longitudinally grooved in the middle; anteriorly this plate is truncate or slightly

concave, posteriorly it ends in two obtuse or rounded lobes. The slightly concave, lateral margins join the coxae of the 4th legs; immediately behind these coxae a salient lamina extends, at either side, from the lateral margins, near the posterior end of the plate, towards the coxae of the 5th legs; between the plate and the thickened, transverse, posterior margin there is a deep concavity.

Length of male 70mm., of female 80mm.

6. *Metapeneus distinctus*, n. sp.

Station 37. Sailus ketjil, Paternoster-islands. Depth 27 M. and less.

Station 184. Anchorage off kampong Kelang, south coast of Manipa-island. Depth 36 M.

A species of the *Metap. akayebi*-group, without stridulating organ, closely related to *Metap. mogiensis* Rathb.

Rostrum and carapace as in this species; rostrum 7 + 1 toothed, reaching just beyond the middle of 2nd joint of antennular peduncle. Epigastric tooth at anterior fourth of carapace. Sixth abdominal somite $^3/_5$ of the length of the carapace, without the rostrum. Ventral spines between the bases of 2nd pair well developed. Thelycum consisting of the following parts: between the legs of the 5th pair two parallel transverse plates, the anterior less broad but longer than the posterior, its anterior margin emarginate, outer angles dentiform, lateral margins arcuate; the posterior plate is cut into three lobes, the outer lobes bluntly dentiform, more prominent than the median one that has a mucronate tip. Between the 4th pair is a sunken plate, a little less broad than long, with mucronate tip in the middle of its anterior border. Midway between this anterior border and that of the anterior of the two plates between the 5th pair of legs are two small teeth that have another form as in *Metap. mogiensis*, and between these teeth and the anterior of the two plates one observes a pair of acute dentiform tubercles,

that are probably wanting in the other species of the *akayebi*-group.

Length of female 60mm.

7. *Metapeneus quinquedentatus*, n. sp.

Station 37. Sailus ketjil, Paternoster-islands. Depth 27 M. and less.

Station 99. Lat. 6°7′5 N.; long. 120°26′ E. Anchorage off North-Ubian. Depth 16—23 M.

Station 109. Anchorage off Pulu Tongkil, Sulu-archipelago. Depth 13 M.

Station 164. Lat. 1°42′5 S.; long. 130°47′5 E. Depth 32 M.

Station 184. Anchorage off kampong Kelang, south coast of Manipa-island. Depth 36 M.

Station 209. Anchorage off the south point of Kabaëna-island. Depth 22 M.

Station 240. Banda-anchorage. Depth from 9—45 M.

Another new species of the *Metap. akayebi*-group and devoid of a stridulating organ.

Rostrum directed obliquely upward, short, reaching to the far end of the 1st joint of antennular peduncle, hardly beyond the eyes; it is constantly armed with five teeth, in addition to the gastric tooth, that is situated at the anterior fourth of the carapace. Sixth abdominal somite measuring three-fourths of carapace without the rostrum.

Lower (inner) flagellum as long as the two last joints of the antennular peduncle.

First legs bispinose, second unispinose, third unarmed. Legs of the 5th pair with exopodite, reaching with their dactyli beyond the eyes.

Left branch of petasma extending beyond the right; left branch with rounded tip, curved towards the right, which is less enlarged than in *Metap. mogiensis*.

Thelycum consisting 1° of a posterior transverse plate, cut into three lobes, the broader middle lobe hardly reaching

beyond the outer ones, 2° of a sunken plate between the legs of the 4th pair, on which one observes no teeth as occur in *Metap. mogiensis* Rathb., *perlarum* Nob. and other species, 3° between the sunken plate and the posterior lamina there is at either side a transverse lobe, directed obliquely outward.

Length of male 45mm., of female 40mm.

8. *Parapeneopsis venusta*, n. sp.

Station off Pulu Jedan, east coast of Aru-islands. Shallow water.

Rostrum very short, reaching to the end of 1st joint of antennular peduncle, with 7 or 8 teeth in addition to the epigastric tooth; the 7 or 8 teeth are contiguous, reach to the tip and the first is situated on the carapace.

No postrostral carina. Longitudinal fissure short, reaching to the level of the epigastric tooth. Antero-inferior angle of carapace rectangular, obtuse, not spiniform or dentiform; the subhepatic ridge stops far short of that angle. Four anterior abdominal terga rounded, 5th and 6th carinate; telson as long as the 6th somite, much shorter than the caudal swimmerets, lateral margins each with 4 small spinules.

Antennular flagella a little shorter than the peduncle. External maxillipedes stout, reaching to the anterior fourth or fifth of the antennal scales. Legs of 1st pair with slender spine at base, following legs unarmed; the 3rd legs reach as far as the 5th, viz. to the middle of the terminal joint of the outer foot-jaws. An epipodite is present on the second maxillipeds only; exopodite of last pair of legs smaller than those of the other legs.

Thelycum consisting of an anterior, semicircular and slightly concave plate, that carries anteriorly a sharp tooth in the middle-line, and of a broader posterior plate, which is deeply notched in the middle, so that the thelycum presents a deep concavity in the centre.

Length of female 39mm.

9. *Trachypeneus salaco*, n. sp.
Station 205. Lohio-bay, Buton-strait. Depth 22 M.
Station 258. Tual-anchorage, Kei-islands. Depth 22 M.

In its outer appearance much resembling *Trach. anchoralis* (Sp. Bate). Body, especially the carapace, more or less tomentose and finely scabrous. Rostrum with the lower margin somewhat ascending and reaching just beyond the 1st joint of the antennular peduncle, with 8 or 9 teeth in addition to the epigastric tooth that is situated at the anterior fourth of the carapace. Postrostral crest obtuse, reaching to the posterior margin of the carapace. Abdominal terga carinate in the same manner as in *Trach. anchoralis*. Telson on each side with 4 small spinules, as in *Trach. curvirostris* (Stimps.). Both pairs of antennae, maxillipedes and thoracic legs closely resembling those of *Trach. anchoralis*.

Petasma symmetrical, not yet half as long as the carapace without the rostrum; the stem ends distally in two large horns that are at right angles with the rest of the organ and that, suddenly narrowing, are inwardly curved, each horn ending in a mucronate tip. From the transverse, anterior margin of each horn a flattened, triangular lamina projects foreward at an obtuse angle with the surface of the horns. This species, at first sight distinguished by its petasma, is also remarkable, because the thoracic legs of the 1st and 2nd pair seem to be devoid of an epipodite, this appendage being only present on the legs of the 3rd pair.

Length of male 42mm.

10. *Atypopeneus dearmatus*, n. sp.
Station 302. Lat. 10°27'9 S.; long. 123°28'7 E. Depth 216 M.
Station 306. Lat. 8°27' S.; long. 122°54'5 E. Depth 247 M.
Station 312. Lat. 8°19' S.; long. 117°41'. Saleh-bay, north coast of Sumbawa. Depth 274 M.

In its outer appearance resembling *Atyp. compressipes*

(Hend.). Rostrum ascending, as long as the 1st joint of the antennular peduncle, 6 + 1 or 5 + 1 toothed, epigastric tooth at the anterior third of the carapace. No postrostral carina. Post-antennular spine small and postantennular sulcus wanting as in *Atyp. compressipes*. No hepatic spine. First three abdominal terga rounded, 4th—6th carinate.

Antennulae and antennae as in *Atyp. compressipes*, but the lower antennular flagellum finely serrate on its distal half in the male. External maxillipedes and legs as in *Atyp. compressipes*, but the 3rd legs are distinctly longer than the 2nd. First and second legs bispinose, third legs unispinose.

Petasma symmetrical, anterior fourth of the stem somewhat narrowing and ending in a pair of short horns, which stand out at right angles to the rest of the organ and each of which terminates in two small teeth or hooks, that are slightly recurved.

Thelycum consisting of a narrow, cyathiform plate between the coxae of the 5th legs, broader anteriorly than posteriorly, with raised lateral margins, which are separated by narrow grooves from the surface of the organ, that is continued anteriorly in a flattened triangular tooth, situated between the coxae of the 4th legs.

Length of male 47mm., of female 72mm.

11. *Solenocera Faxoni*, n. sp.
Station 254. Lat. 5°40′ S.; long. 132°26′ E. Depth 310 M.

Rostrum acute, short, not quite reaching to the end of the eyes; upper margin directed somewhat downward, armed with 6 teeth, 3 of which are on the carapace.

Rostral crest reaching only to the cervical groove, posterior to it the carapace is rounded. No tooth at orbital angle. Post-antennular spine and hepatic spine small, postorbital spine a little larger; a strong, acute, flattened, branchiostegal spine or tooth at the extremity of the sub-

hepatic groove, this spine being larger than the three others and overhanging the unarmed, rounded, antero-inferior angle of the carapace.

First to third abdominal terga rounded, the 3rd without any trace of carina; 4th—6th terga strongly carinate.

Antennular flagella both compressed, of equal length, as long as the carapace, abruptly acuminate at their extremities; upper flagellum narrow, presenting along its whole length the same breadth of 0.7mm., lower flagellum at its proximal extremity almost twice as broad, slightly narrowing distally, appearing therefore near the tip as narrow as the upper flagellum.

Length of carapace, rostrum included, of the very incomplete, single specimen (♀) that was collected, 23mm., without the rostrum 19mm.; whole length 68mm., probably, because the caudal fan is much injured.

12. *Solenocera melantho*, n. sp.

Station 302. Lat. 10°27'9 S.; long. 123°28'7 E. Depth 216 M.

Station 306. Lat. 8°27' S.; long. 122°54'5 E. Depth 247 M.

Station 312. Lat. 8°19' S.; long. 117°41' E. Salehbay, north coast of Sumbawa. Depth 274 M.

Body smooth, glabrous. Carapace distinctly compressed, measuring, rostrum included, one third of the whole length. Rostrum stout, short, as long as the eyes, upper margin slightly ascending, with 8 or 9 strong teeth, the 4th situated above the frontal margin, the 1st once and a half as far from the 2nd as the 2nd from the 3rd; postrostral carina not interrupted by the cervical groove, prominent and reaching to the posterior margin; lower margin of the rostrum very slightly concave in the middle, unarmed. Sides of carapace, besides with a more or less dentiform, orbital angle, with three spines only, the antennal, the hepatic and the post-orbital, that is somewhat remote from

the anterior margin and situated above the level of the antennal spine. Third to sixth abdominal somites carinate; 6th somite little longer than the 5th and one fourth longer than high; telson one third longer than the 6th somite, with a pair of small spines near the tip, almost as long as the outer branch of the caudal fan.

Eyes large, black, reniform. Antennular peduncle shorter than antennal scales, flagella slender, once and a half as long as the carapace without the rostrum.

Legs of 1st pair bispinose, those of 2nd pair unispinose, 3rd pair unarmed; 3rd pair reaching with more than half their carpal joints beyond the antennal scales; carpal joints of 3rd legs almost twice as long as the meri. Dactyli of 4th legs lanceolate, like the propodites that are once and a half as long, compressed and carinate on the upper and the lower side. Fifth legs thinner than the others, as long as 3rd pair, reaching with the two last joints beyond the scales. Each branch of the petasma ends in 3 lobules, the anterior, the longest, truncate, with minute spinules on the distal margin, the middle-ones shorter, obtuse, the posterior hooky, curved outward, also with minute spinules, the shortest of all.

Thelycum consisting 1° of a vertical plate immediately behind the coxae of 4th pair, 2° of a quadrangular, horizontal plate between the legs of the 5th pair, with upstanding margins, 3° of two small tubercles just behind the vertical plate.

Length of male 100mm., of female 132mm..

13. *Haliporus sibogae*, n. sp.

Station 38. Lat. 7°35'4 S.; long. 117°28'6 E. Depth 521 M.

Station 74. Lat. 5°3'5 S.; long. 119°0' E. Depth 450 M.

Station 212. Lat. 5°54'5 S.; long. 120°19'2 E. Depth 462 M.

Station 256. Lat. 5°26'6 S.; long. 132°32'5 E. Depth 397 M.

Carapace, abdomen and some appendages thickly covered with a close tomentum of very short, curved setae. Rostrum, as in *Halip. curvirostris* Sp. Bate, falciform, just reaching beyond the 1st joint of the antennular peduncle, sometimes to the middle of the 2nd, upper margin at first ascending, curved downward beyond the middle; in addition to one small epigastric tooth the upper margin carries 6, sometimes 7, rarely 8 teeth, whereas one observes usually one, sometimes two teeth on the concave lower edge near the tip. Behind the epigastric tooth the carapace is rounded. Spiny armature and grooves on the sides of the carapace as in *Halip. diomedeus* (Faxon); cervical groove well impressed, interrupted by the dorsum of the carapace, terminating just near the small branchiostegal spine at the antero-inferior angle of the carapace. Three first abdominal terga rounded, the three posterior carinate; telson little longer than 6th somite, with one pair of small spines near the pointed tip. Endopodite of caudal fan reaching far beyond the tip of the telson, outer branch reaching as far beyond the tip of the endopodite.

Eyes large, reniform. Antennular flagella filiform, of subequal length, both considerably longer than the body, as in *Halip. diomedeus*.

Second joint of mandibular palp little more than half as long as the proximal joint and much narrower. First pair of legs with a minute spinule at the base and at the far end of the ischium, merus with 4 or 5 small spinules along its lower margin. Legs of the 3rd pair hardly reaching beyond the antennal scales, carpus, like that of the 2nd pair, little dilated proximally, once and a half as long as the merus.

Fourth pair almost as long as the 3rd, which it does not surpass; carpus a little shorter than the merus. Fifth pair filiform, much longer than the 4th legs, reaching with half their propodites or somewhat more beyond the

antennal scales; carpus sometimes distinctly shorter than the merus, sometimes both joints are of subequal or equal length; dactyli as in the 4th legs, little more than half as long as the propodite.

Petasma longitudinally folded. The sternum of the last thoracic somite arises, in the female, as a low, obtuse tubercle, which is sometimes obscurely carinate longitudinally.

Branchial formula as in *Haliporus*, but there is a small arthrobranchia on the 7th somite. Minute, quite rudimentary, exopods on all the thoracic legs and on the 2nd and 3rd maxillipeds.

Length of male 165mm., of female 175mm.

14. *Haliporus propinquus*, n. sp.

Station 89. Pulu Kaniungan Ketjil. Depth 11 M.

Station 178. Lat. 2°40′ S.; long. 128°37′5 E. Depth 835 M.

Station 316. Lat. 7°19′4 S.; long. 116°49′5 E. Depth 538 M.

Closely resembling *Halip. aequalis* Sp. Bate. Rostrum obliquely ascending both in the male and in the female, straight, reaching to the far end of the 2nd joint of the antennular peduncle, with 4—6 teeth on the upper margin in addition to 2 epigastric ones. Postrostral carina distinct till near the posterior margin, though not at all prominent, not interrupted by the cervical groove. The four spines and the grooves on the sides of the carapace arranged as in *Halip. aequalis*. Abdomen with the 3rd—6th somite carinate, usually also the 1st and the 2nd, the carina of the 1st being short and, like that of the 2nd, little prominent; carina of the 6th somite ending in a tooth.

As regards the eyes, the two pairs of antennae and the thoracic appendages, this species closely agrees with *Halip. aequalis*. Proximal joint of mandibular palpi comparatively less broad than in this species. The two lobes of the petasma

terminate each in a larger anterior and a smaller posterior lobule; anterior lobule with obtuse tip that carries a small incision and that, like the sinuous posterior margin, is fringed with short, spiniform setae; posterior lobule triangular with subacute tip, beset, like its posterior margin, with still smaller spinules.

In the female there is a transverse plate with rounded upper margin between the legs of the 4th pair, whereas this margin is sharp and cutting in *Halip. aequalis*; instead of the low and flattened, shield-like plate that in *Halip. aequalis* exists between the legs of the 5th pair, one observes a transverse, much thicker and higher tubercle, the postero-lateral angles of which are conical and obtuse.

Length of male 81mm., of female 91mm.

15. *Sicyonia fallax*, n. sp.

Station 105. Lat. 6°8′ N.; long. 121°19′ E. Depth 275 M.

Closely resembling *Sic. longicauda* Rathb. from the Hawaiian islands, but perhaps different.

Rostrum shorter, less slender, broader at base, still more ascending, hardly reaching to the far end of the 1st joint of antennular peduncle; upper margin with 4 teeth, the posterior just behind the frontal border, a small tooth below the tip that appears therefore tridentate. Of the two teeth on the dorsal crest of the carapace, that reaches to its posterior border, the posterior is larger than the anterior and more prominent than in *Sic. longicauda*. Sixth abdominal somite hardly once and a half as long as the 5th and somewhat more than once and a half as long as high. Telson longer than 6th somite.

Length of female 45mm.

16. *Sicyonia rectirostris*, n. sp.

Station 193. Sanana-bay, east coast of Sula Besi. Depth 22 M.

Closely resembling *Sic. parvula* de Haan, but different

by the rostrum. Rostrum horizontal, measuring one third the rest of the carapace, hardly reaching beyond the 1st joint of antennular peduncle. In a lateral view the rostrum appears to narrow considerably, being hardly half as broad at the level of the 4th rostral tooth, i. e. near the tip, as at the base. Upper margin armed with 5 teeth; one tooth at the far end of the straight and horizontal, lower margin. First tooth above the anterior margin of the carapace, distances between the following slightly decreasing, 4th and 5th tooth and the tip that is curved downward, situated near one another, so that the rostrum appears tridentate at the far end, like in *Sic. bispinosa*. Lateral carina running close to the lower margin. Two low teeth on the dorsal carina of the carapace, tip of the anterior tooth just as far distant from the anterior margin of the carapace as from the tip of the posterior tooth, the latter a short way behind the middle; the tip of the anterior tooth is just as far distant from the 1st rostral tooth as the latter from the 4th. For the rest resembling *Sic. parvula*.

Length of the only female that was collected, 21mm.; length of carapace, rostrum included, 7,1mm. and 5,25mm. without it.

17. *Sicyonia trispinosa*, n. sp.
    Station 37. Sailus ketjil, Paternoster-islands. Depth 27 M. and less.
    Station 51. Madura-bay and other localities in the southern part of Molo-strait. Depth from 69 to 91 M.

Closely resembling *Sic. sculpta* H. M.-Edw., but distinguished by its much smaller size. Dorsal carina of the carapace with three teeth, that are rather low and equidistant. Rostrum as in *Sic. sculpta*, slightly ascending, reaching to the end of 2nd joint of antennular peduncle; just behind the tooth of the lower margin the rostrum is little more than half as broad as at the base; upper

margin with 4 or 5 teeth, the 1st tooth above the orbital margin, its tip projecting beyond it and once and a half as far distant from the 3rd tooth on the carapace as from the tip of the 2nd rostral tooth; one tooth at the end of the lower margin. Orbital angle more obtuse than in *Sic. sculpta.*

Abdomen as in this species, the pleura of the 1st somite presenting two transverse furrows; carina of the 1st tergum terminating in a sharp tooth, that of the 2nd obtuse.

Antennular peduncle as in *Sic. sculpta*, but the spine at the far end of the 1st joint more slender and the posterior spine farther distant from the outer margin; 2nd joint once and a half as long as broad and nearly twice as long as the 3rd joint.

Legs of 1st pair bispinose, fingers longer than the palm, both in this pair and in the 2nd; legs of 3rd and 5th pair wanting in the two specimens that were collected.

Petasma symmetrical. Anterior margin with a sharp spine, directed straightly foreward, at either angle; lateral margins slightly diverging from the base to just beyond the middle, ending here in an obtuse tooth; anteriorly the lateral margins carry two other teeth, the anterior of which is pointed and curved backward, while the other is sharp and directed obliquely foreward.

Length of male with fully developed petasma 21,75mm.

18. *Sicyonia benthophila*, n. sp.
Station 253. Lat. 5°48'2 S.; long. 132°13' E. Depth 304 M.

Carapace, rostrum included, one third the whole length, longer in proportion to its height than in most other species, being once and a half as long as high, the rostrum excluded. One small tooth on the carapace, just in the middle, behind which the carapace is rounded; another tooth anteriorly, its distance from the anterior margin $^1/_9$ the length of the carapace. Rostrum quite horizontal, short

and high, reaching to the end of the 1st joint of the antennular peduncle, $2^1/_2$-times as long as high in the middle; upper margin with 3 teeth, all on the rostrum itself, lower margin with one tooth at the end, rostrum truncate between the tooth at the end of the lower margin and that at the end of the upper.

Abdomen carinate as in the other species, the carina of the 1st tergum rising into a small, acute tooth. Sixth somite once and a half as long as the 5th and almost twice as long as broad. Abdominal somites quite smooth, not sculptured at all, though one or two transverse furrows on the pleura are more or less distinct; pleura rounded or obtuse at their posterior angle, no tooth at the rectangular, postero-inferior angle of the 6th somite. Telson longer than 6th somite, with a pair of small spines near the tip.

Eyes shorter than the rostrum, cornea black.

Thoracic legs slender. First pair bispinose; carpus of 2nd pair 15-times as long as thick in the middle, fingers one fifth longer than the palm. Carpus of 5th pair 15-times as long as thick in the middle, twice as long as the propodite and 3-times as long as the dactylus.

Length of the only specimen (♀) that was collected 17,7mm.

19. *Gennadas clavicarpus*, n. sp.

Station 128. Lat. 4°27′ N.; long. 125°25′7 E. Depth 1645 M. From 700 M. to surface.

Station 141. Lat. 1°0′4 S.; long. 127°25′3 E. Depth 1950 M. From 1500 M. depth to surface.

Station 230. Lat. 3°58′ S.; long. 128°20′ E. From a depth of 2000 M. to surface.

Carapace with the rostrum measuring in the male just one third the length of the abdomen, in the female a little more. Carapace and abdomen as in *Gennadas borealis* Rathb. (Rathbun, Decapod Crustaceans North West Coast of North America, 1904, p. 147), but the rostral tooth is situated just behind the level of the orbital margin and

the gastrofrontal furrow runs in the direction of that tooth. Postrostral carina interrupted on the short interspace between the well-cut gastric and cervical grooves, rather sharp in front of the gastric sulcus.

Eye-peduncles flattened, with large, acute, conical tubercle, cornea dark red brown. Third joint of antennular peduncle somewhat longer, but less broad than the 2nd. Antennal scale measuring two thirds the length of the carapace, rostrum included, extending beyond the antennular peduncle almost by the length of the 3rd joint; it narrows rather strongly, the inner margin is straight and the terminal spine exceeds the blade as far as the obtuse tip of the latter is broad.

Second and third maxillipedes as in *Amalopenaeus elegans* Smith (Bull. Museum Comp. Zool. X, N°. 1, 1882, Pl. XV, fig. 5), but the carpus appears claviform, being considerably thickened distally, the thickness here being just one third the length of the joint.

Legs of the 1st and 2nd pairs much as in *Amalop. elegans*, but the carpus has a stouter shape, that of the 1st being $2^1/_2$-times as long as broad, that of the 2nd $3^1/_2$-times. Carpus of the 3rd pair slightly longer than the merus.

Petasma symmetrical, each leaf terminating on the distal margin in a larger rounded lobe near the median line of the organ and in two narrow teeth or spines, of which that at the outer angle of the margin is much smaller than the other, which is sharp and curved foreward; there are moreover two small tooth-like lobes on the anterior surface of the organ.

Thelycum consisting of a trapezoidal, upstanding plate or tubercle, between the legs of the 3rd pair, nearly as long as broad at the base and terminating anteriorly in two small teeth; this tubercle is followed by three horizontal plates, of which the two anterior, between the legs of the 4th pair, are broad, the posterior one, between the coxae of the 5th pair, rather narrow, slightly longer than broad.

Length of male 27mm., of female 34mm.

20. *Gennadas Pasithea*, n. sp.

Station 230. Lat. 3°58′ S.; long. 128°20′ E. From a depth of 2000 M. to surface.

A species related to *Gennadas borealis* Rathb. (Rathbun, Decapod Crustaceans North West Coast of North America, 1904, p. 147).

Carapace of the male, rostrum included, 12mm. long, i. e. two fifth parts the length of the abdomen. Rostrum as in *Gen. borealis*, but shorter, reaching almost to the middle of the 1st joint of the antennular- and of the eye-peduncle. Rostral tooth situated just above the orbital margin. Carinae and grooves of the carapace and of the abdomen nearly as in *Gen. borealis*. Branchiostegal spine minute, 6th abdominal somite carinate alone.

Eye-peduncles as in this species, diameter of the cornea $^1/_{12}$ the length of the carapace, rostrum included. Third joint of antennular peduncle appearing about twice as long as the 2nd, when seen from above.

Antennal scale 6,3mm. long to the end of the blade, $3^1/_2$-times as long as broad, moderately narrowed, so that, at the level of the base of the distal spine, it appears still almost half as broad as at that of the greatest breadth; inner and outer margins of the scale straight, tip of the blade oblique, obtuse, extending beyond the tip of the distal spine farther than the spine itself is long.

Merus of 2nd maxillipeds a little more than half as broad as long, distal lobe rounded, half as long as the rest of the merus. External maxillipedes and legs nearly as in *Gen. borealis* and as in *Amalop. elegans* Smith, but the chela of the 2nd legs in proportion to the carpus shorter than in *Amalop. elegans*, the carpus being in the male 2,8mm. long, the chela 2mm.. Carpus of the 3rd legs a little shorter than the merus, chela little more than half as long as the carpus.

Petasma large, symmetrical, strongly arched, as long as broad, terminating distally in four lobes, viz. in two larger submedian ones that are triangular, obtuse and separated

by a semicircular emargination, and two smaller lateral lobes that are separated from the former by a deeper but narrower notch and each of which ends in a narrow tooth or spine. At either side of the median line and contiguous to it are situated two tubercles or prominences behind one another and, between them, at either side of the median line, a small, compressed, narrow tooth or lobule, with rounded tip; the anterior tubercle is conical, obtuse, the posterior longer and narrower.

Thelycum consisting of a horizontal plate between the three posterior thoracic legs, rounded anteriorly, while the less broad posterior margin is also rounded; antero-lateral margins upstanding and thickened near the coxae of the 4th legs.

Male long 41mm., female a little smaller.

NOTE: The above paper contains the diagnoses of 19 new Species and of 1 new Variety, mostly belonging to the Family Peneidae. The Macrura, collected by the »Siboga-Expedition", are at present at Ierseke, but will be transferred to the Zoological Museum of the University of Amsterdam, as soon as they have been worked out.

Ierseke (Holland), August 1907.